United States Department of Agriculture

ALLEGHENY FOREST EXPERIMENT STATION*

Forest Service
Technical Note No. 36

Philadelphia, Pa.
November 16, 1942

PULPWOOD VOLUME TABLE FOR BEECH POLES

by C. E. Ostrom, Associate Silviculturist

In view of the wartime labor shortage, it is desirable in pulpwood operations to conserve labor by deferring bucking and piling until the end of the spring peeling season. It is also desirable to save time and equipment by employing pole skidding in place of draying except over long distances. These methods of operation are facilitated by scaling pulpwood in pole form with tables based on utilization to a pole-skidding top. This sort of table is given below for beech hold-over trees, which are a problem in volume estimation because of their great variation in diameter and merchantable length.

BEECH - PENNSYLVANIA (Fagus grandifolia Ehr.)

Stem and main forks, less bark, to pole skidding top

D.B.H.1/: o.b. : Inches	Merchantable Length (above stump) 20	30	40	50	60	70	Basis : No. of: Trees	Corresponding D.I.B.1/ at - Br. Ht.	Stump
	Peeled Volume - Cubic Feet								
6	3.22	4.20	5.33	6.40				5.9	7.0
7	4.38	5.76	7.24	8.75				6.9	8.0
8	5.62	7.38	9.28	11.15	13.20		1	7.8	9.0
9	7.16	9.39	11.80	14.25	16.86		3	8.8	10.1
10	8.68	11.40	14.32	17.25	20.46	23.73	5	9.7	11.1
11	10.6	13.9	17.4	20.9	24.9	28.6	6	10.7	12.2
12	12.6	16.5	20.8	25.1	29.8	34.4	2	11.7	13.3
13	14.7	19.2	24.1	29.1	35	40	7	12.6	14.3
14	17.1	22.4	28.2	33.9	40	47	4	13.6	15.4
15	19.4	25.4	32.0	39	46	53	6	14.5	16.4
16	22.2	29.1	36.6	44	52	60	8	15.5	17.5
17	25.1	32.9	41	50	59	69	3	16.5	18.6
18	28.0	36.6	46	56	66	76	10	17.4	19.6
19	31.3	41	51	62	73	85	3	18.4	20.7
20	34.8	45	57	69	82	95	9	19.4	21.7
21		50	63	76	90	105	6	20.4	22.8
22		55	69	83	99	114	2	21.3	23.9
23		60	76	91	108	125	2	22.3	24.9
24		66	83	100	118	136	1	23.3	26.0
25		71	89	108	128	148	3	24.2	27.0

Basis - 81 trees. Aggregate deviation, table 1.9% low; average percentage deviation 9.7. Average stump height 1.5 feet. Constructed by "Form Basal Area"2/ method, but adjusted for average form in each merchantable height class. Field work by A. F. Hough, M. J. Ferree, D. C. Conley, A. Bennett, and C. E. Ostrom.

1/ DBH: Diameter 4.5 ft. above ground. O.B.: outside bark. DIB: diam.inside bark.
2/ See Girard, J. W. and S. R. Gevorkiantz: Timber Cruising. Mimeographed by U. S. Forest Service. 1940.

*In cooperation with the University of Pennsylvania.